TO MD 137

#### PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 45 AND MD 138 IN BALTIMORE COUNTY. MD 45 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

# INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE AND FIREHOUSE PRE-EMPTION THIS SIGNAL WILL BE INTERCONNECTED TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTIONOF MD 45 AND MD 137.

#### CONTROLLER REQUIREMENTS

TO FIREHOUSE PUSHBUTTON

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE AND ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE. EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

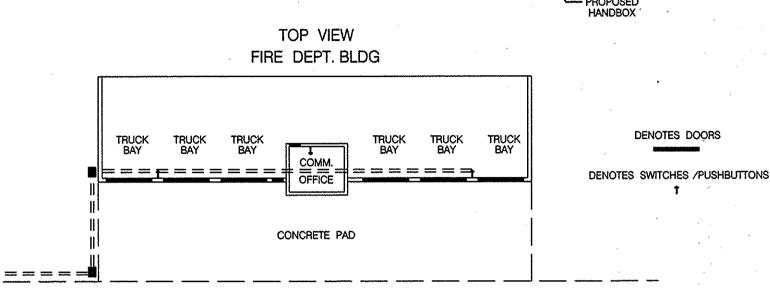
### SPECIAL NOTE

### **EQUIPMENT LIST "A"**

A EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

| •          |                 |   |  |  |  |  |
|------------|-----------------|---|--|--|--|--|
| ITEM NO.   | <u>QUANTITY</u> | DESCRIPTION   |  |  |  |  |
| 9016       | 1 EA            | FOUR CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER |  |  |  |  |
| 9042       | 1 EA            | CONTROLLER ASC II WITH TELEMETRY                        |  |  |  |  |
| 9044       | 1 EA            | BASE MOUNTED CABINET NEMA SIZE 6 WITH SYSTEM PACKAGE    |  |  |  |  |
| 9086       | 1 EA            | VIDEO DETECTION INTERFACE EQUIPMENT 1-4 CAMERAS         |  |  |  |  |
| 9571 /9570 | 92 SF           | SHEET ALUMINUM SIGNS                                    |  |  |  |  |
|            |                 | 1 EACH - D3-2 DUAL FACED SIGN (VAR. X 16") "MONKTON RD  |  |  |  |  |
|            |                 | WITH ARROW" - MAST ARM MOUNT                            |  |  |  |  |
| e e        | ,               | 2 EACH - W3-3 SIGN (36" X 36"), "NEW" PANEL (24" X 24") |  |  |  |  |
|            |                 | AND FLAGS - GROUND MOUNT                                |  |  |  |  |
|            |                 | 1 EACH - D3-2 SINGLE FACE SIGN (VAR. X 16"), "YORK RD"  |  |  |  |  |
|            |                 | MAST ARM MOUNT  |  |  |  |  |

#### PUSHBUTTON, SIGNS BUTTON FOR NORTH FOR SOUTH EMERGENCY



DENOTES DOORS

FIREHOUSE PUSHBUTTON INSTALLATION DETAIL

FRONT ELEVATION

FIRE DEPT. BLDG

SIDE WALL VIEW SIDE WALL VIEW INSTALLATION FRONT OF STATIONHOUSE 1/2" EMT-PROPOSED - CONDUIT FLOOR PROPOSED HANDHOLE

> MARK GARDNER ASST. CHIEF CELL PHONE 443-791-2289 FIRE CHIEF CHUCK BOLLINGER FIREHOUSE PHONES 410-357-4443 410--887--1934

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

WIRING DIAGRAM

WIRING KEY

(NO. 14 A.W.G.)

(NO. 14 A.W.G.)

(NO. 14 A.W.G.)

3-CONDUCTOR ELECTRICAL CABLE

5-CONDUCTOR ELECTRICAL CABLE

7-CONDUCTOR ELECTRICAL CABLES

MICRO-LOOP PROBE LEAD-IN

VIDEO DETECTION CABLE

WIRE (NO. 6 A.W.G.) VIDEO DETECTION CAMERA

MICROLOOP PROBE GROUND ROD

(NO. 4 A.W.G.)

(NO. 14 A.W.G.)

12-PAIR VOICÉ GRADE INTERCONNECT

STRANDED BARE COPPER GROUND

1-CONDUCTOR ELECTRICAL CABLE

7-CONDUCTÓR ELECTRICAL CABLE

PROPOSED ELECTRIC SERVICE PROPOSED TELEPHONE SERVICE

# EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

1 EACH - R10-11 SIGN (24" X 24"), MAST ARM MOUNT

2 EACH - ASSOCIATED SHIELD ASSEMBLY (30" X 51"), GROUND MOUNT

1 EACH - R10-6 SIGN (24" X 30"), GROUND MOUNT

| QUANTITY                | DESCRIPTION   |
|-------------------------|---|
| 1001 38 EA              | MAINTENANCE OF TRAFFIC  |
| 2002 4 CY               | TEST PIT EXCAVATION   |
| 50072 300 LF            | REMOVAL OF EXISTING PERMANENT PAVEMENT MARKING - ANY WIDTH                            |
| 5005 70 LF              | FURNISH AND INSTALL 24 IN HEAT APPLIED WHITE PERMANENT                                |
|                         | PREFORMED THERMOPLASTIC PAVEMENT MARKING  |
| 5001 80 LF              | FURNISH AND INSTALL 5 IN HEAT APPLIED WHITE PERMANENT PAVEMENT MARKING                |
| <b>&amp;</b> o37 150 LF | FURNISH AND INSTALL WOOD SIGN SUPPORT 4 IN. X 4 IN.                                   |
| 8041 275 LF             | FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE                     |
| 8034 650 LF             | FURNISH AND INSTALL SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN.                         |
|                         | -SLOTTED  |
| 8036 110 LF             | FURNISH AND INSTALL SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INBORED                     |
| 8635 500 LF             | FURNISH AND INSTALL SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN.                         |
| 0002                    | -TRENCHED   |
| - DEAG                  | FURNISH AND INSTAKL ELECTRICAL LITILITY-SERVICE EQUIRMENT                             |
| 8045 80 LF              | FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G.                         |
|                         | THHNTHWN  |
| 8021 2 EA               | FURNISH AND INSTALL NON-INVASIVE MICRO-LOOP PROBE WITH 500 FT. LEAD-IN                |
| 804-7 12 EA             | FURNISH AND INSTALL ELECTRICAL HANDHOLE   |
| 8039 92 SF              | INSTALL OVERHEAD AND GROUND MOUNTED SIGN  |
| 8026 2 EA               | FURNISH AND INSTALL VIDEO DETECTION CAMERA AND CABLE                                  |
| 8017 1EA                | FURNISH AND INSTALL 16.5 FT. MAST ARM POLE AND 60 FT. MAST ARM (15 FT. "T" DIMENSION) |
| 8009 2 EA               | FURNISH AND INSTALL PEDESTAL POLE ANY SIZE  |
| \$ 004- 3 EA            | FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION                       |
| 8001 42 EA              | FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION                      |
| 8052 1EA                | CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE                                |
| 8056 50 LF              | FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)                      |
| <i>⊗o57</i> 975 LF      | FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)                      |
| 8055 600 LF             | FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR (NO. 14 A.W.G.)                      |
| 8065 1EA                | INSTALL CONTROLLER AND CABINET - BASE MOUNT   |
| 200/ 5 CY               | CLASS 2 EXCAVATION  |
| 600Z 200 SF             | FURNISH AND INSTALL 4 IN. CONCRETE SIDEWALK   |
| 8029 450 LF             | FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLYFILLED                          |
| 8033 NEG ZOOLF          | FURNISH AND INSTALL FIREHOUSE PRE-EMPTION PUSHBUTTONS, ASSOCIATED CONDUCT +HARDWAR    |
| BOZZ #   EA             | REMOVE AND DISPOSE OF EXISTING EQUIPMENT  |
| 8043 1EA                | FURNISH AND INSTALL SERVICE PEDESTAL  |
| · A                     |   |
| Q (1) M. / 2            | 16-06   |
| trev. Willer            |   |
| ·                       |   |

TOD No.: AT915-05 SHA No.:BA617A51/B51

## CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT ASSISTANT DISTRICT ENGINEER - TRAFFIC

(410) 321-2781

MIKE PASQUARIELLO ASSISTANT DISTRICT ENGINEER - UTILITIES (410) 321-2843

# CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7631

MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676

ASSISTANT DISTRICT ENGINEER - MAINTENANCE

MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7668

MR. STEVE MARCISZEWSKI

(410) 321-2761

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN MD 45 (YORK RD.) AND MD 138 (MONKTON RD.)

TRAFFIC CONCEPTS, INC. 325 Gambrills Road Suite E

Gambrills, MD 21054 (410) 923-7101 FAX (410) 923-6473 EMAIL TRAFFIC.CONCEPTS@COMCAST.NET

SCALE NONE DATE 6-16-06 CONTRACT NO. AT9155185 BALTIMORE DESIGNED BY \_\_\_\_\_T. ZAYDEL COUNTY T. ZAYDEL LOGMILE CHECKED BY K. SCHMID T.I.M.S. NO. F.A.P. NO. TOD NO. DRAWING NO. TS-4480 GI SHEET NO. 3 OF 3

# PHASING CHART

|                       | 1 (2) (3) | 2<br>(R)<br>(V)<br>(G) | (R)<br>(V) (V)<br>(O) | <b>1</b>         | 5<br>R<br>Y<br>G | 6<br>(R)<br>Y (G) | 7<br>(R)<br>(P)<br>(G) |               |
|-----------------------|-----------|------------------------|-----------------------|------------------|------------------|-------------------|------------------------|---------------|
| PHASE 1 & 6           | R         | R                      | -G<br>-G-             | G<br><b>4</b> -G | G                | R                 | R                      | <i>†</i> ,    |
| 1 & 6 CHANGE          | R         | R                      | G<br><b>←</b> Y−      | G<br><b>∢</b> -Y | G                | R                 | R                      | $\rightarrow$ |
| PHASE 2 & 6           | G         | G                      | G                     | G                | G                | R                 | æ                      | <b>,</b>      |
| 2 & 6 CHANGE          | Υ         | Υ                      | Υ                     | Y                | Υ                | R                 | R                      | -             |
| PHASE 4               | R         | R                      | R                     | R                | R                | G                 | G                      | ,             |
| 4 CHANGE              | R         | R                      | R                     | R                | R                | Y                 | Υ                      | · ↓           |
| PRE-EMPTION           | R         | R                      | R                     | R                | R                | G                 | G                      | ,             |
| CHANGE                | R         | R                      | R                     | R                | R                | Y                 | Υ                      | <b>-</b>      |
| FLASHING<br>OPERATION | FLY       | FLY                    | FLY                   | FLY              | FLY              | FLR.              | FLR                    | <u> </u>      |

# **EQUIPMENT LIST "C"**

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

NONE

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**DESCRIPTION**